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Communicating with, through, and as the Recipient. Changing the Rules in Strategic Communication and Journalism

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WHEN ROBOTS WRITE THE NEWS

A Guideline Based Interview Study on Opportunities and Risks of Using Artificial Intelligence in Political Reporting in Germany and the U.S.

Laila Granderath, Julia Grobb, Marleen Heimann, Fabian Klaproth, Hannah Ötting

Abstract

Artificial Intelligence (AI) is increasingly being implemented in journalism, possibly leading to various fundamental changes within the field. Especially the forerunner countries U.S. and Germany make use of the technologies in several sub-sectors of reporting. While pioneer-studies exploring said implementation have focused on audience, as well as practitioners' perceptions of AI, a focus on the democratically crucial political journalism is lacking. Therefore, the given paper investigates how those working in the journalistic field in Germany and the U.S. evaluate AI-usage in political reporting. Scopes, contexts, and opportunities, as well as risks of the technologies are considered. Eleven interviews with experts from leading news organizations were conducted and analyzed using a qualitative content analysis, focusing on comparisons between the two countries. Results show varying strategies of AI implementation within the two countries, with election coverage being the predominant political topic reported on with the help of AI. Furthermore, the findings show that AI could possibly free journalists from routine tasks, and allows for more in-depth and large-scale research, which in turn could lead to an increase in the qualitative standard of political journalism. However, journalists also point towards ethical and economic concerns. Considering the results, directions for future research and the practice of journalism are discussed.

Keywords: artificial intelligence, AI, journalism, political journalism, Germany, U.S.

1 The Role of Artificial Intelligence in Journalism

Artificial Intelligence (AI) is playing an increasingly important role in the whole of society. The simulation of human intelligence, precisely algorithms and machine learning processes with little to no human intervention based on large amounts of data, can be found in many subsectors of our day-to-day lives (Kreutzer & Sirrenberg, 2019, p. 3; Loosen & Solbach, 2020, p. 177; Mainzer, 2016, p. 2). As such, studies show that communicative AI could change both the production and consumption of news fundamentally (see for example in Caswell & Dörr, 2018; Loosen & Solbach, 2020, p. 177).

Automated writing and researching processes, analysis of user data for generation of personalized news content, and natural language generation can and will be found in more news outlets in the future (Kreutzer & Sirrenberg, 2019, pp. 28-29; Loosen & Solbach, 2020, pp. 178-179; Túñez-López, Toural-Bran & Cacheiro-Requeijo, 2018, p. 755). As journalism allows for opinion- and will-formation and entails critical democratic functions, such as informing a society of developments (DJV, 2020), research on the effects of AI on journalism is societally relevant. A focus on political journalism is needed in future studies. Political journalism, in the context of this paper, is understood following Lüneborg and Sell (2018, pp. 4-14) as going beyond the department of "politics" and as describing the professional public discussion of the political, of power relations, of participation within a society, and of political actors, their actions, and related consequences, in analog and digital media (DJV, 2020).

Pioneer-research within the field considering audience perspectives on the technologies concludes that AI written journalism is perceived as more objective and trustworthy than journalistic content written by humans (Graefe, Haarman & Brosius, 2018, pp. 603-606; Wu, 2020, pp. 1018-1019). As pressure on news media in Western countries to act against accusations of fake news and populism is increasing, AI could offer a fruitful pathway in future news making, which needs to

be considered. Furthermore, studies suggest that the grade of implementation varies greatly between outlets and countries (Napoli, 2014, p. 353; Túñez-López et al., 2018, p. 753). This makes an international comparative analysis of forerunner nations relevant. Within these countries, expert perspectives from those working within the field and with AI could offer worthwhile insights. Studies considering such expert perspectives, however, do not focus on AI in political journalism explicitly and largely research the implementation in countries with little usage of the technologies (see for example Jamil, 2020; Montal & Reich, 2017). Based on the societal, timely, and scholarly relevance of the topic, as well as the discussed research gap, the given paper therefore asks the following research-leading question:

> *How do those working within the journalistic field in Germany and the U.S. evaluate AI-usage in political reporting?*

The two countries are examined here, as previous research characterizes them as leading in AI-implementation within newsrooms (Túcez-Lypez et al., 2018, p. 753).

To answer the question, an explorative approach was chosen. Following a systematic literature review and the formulation of subordinate research questions, which are described in the first, theoretical part of the paper, qualitative guideline-based expert interviews were conducted. The empirical part of the paper discusses the chosen method as well as the operationalization and the results which were analyzed using a qualitative content analysis. They are then set into relation with previous research and hypotheses are formulated. Finally, limitations are considered, and a conclusion gives insights into the implications for future research and the practice of journalism.

2 Theory/Prior Evidence

As public debates about Artificial Intelligence have been unfolding over the last years, scholarly attention likewise turned to examine impact and effects of AI usage in media and communication contexts. Although research on this matter has been

highly insightful, the use of AI in communication contexts continues to be an ever-changing issue which appears extremely difficult to grasp. Loosen and Solbach (2020) emphasize the need for simultaneously addressing the issue at the level of public discourse and scientific debate. Turning to mass media is particularly important in that regard. In fact, mass media takes on a vital role as a hybrid actor both informing the public about the issues that cling to AI, creating expectations and at the same time being subject to direct AI implementation in journalistic practices and organizations (Brennen, Howard & Nielsen, 2020, p. 2). As an initial overview, Diakopolous (2019) examines the structural changes that swept over the field of journalism through algorithms.

Due to the relative newness of AI as a phenomenon and the vast rapidity of its spread, research up to now has predominantly been driven by empirical findings. On the contrary, theoretical conceptualizations and incorporations into existing theories are rather rare. Exceptions consider automated journalism following an institutional approach or in a human-machine-framework (Napoli, 2014 respectively Lewis, Guzman & Schmidt, 2019). Dörr (2016, pp. 5-6) offers the useful distinction between input, throughput and output as three stages where an automated software such as Natural Language Generation (NLG) can operate. This was drawn upon and elaborated further by Loosen & Solbach (2020, p. 181), who incorporated AI in the traditional News Circle. Here the process is divided into observation, production, distribution and use and the overarching stages of data generation, data processing and data interpretation. AI use prevails in distribution and personalization, hence, it is mostly used for economic factors. However, it can be of crucial importance on other stages such as the pattern verification and data processing in projects like the Panama Papers (Stray, 2019, p. 1092), which according to Diakopolous (2019) "illustrates the power of combining human knowledge and expertise with the capabilities of machines to cope with an immense scale of data" (p. 14). Beyond that, AI can alter selection processes as it "can help find stories humans would miss" (Stray, 2019, p. 1093). Overall, Loosen and Solbach argue that, as an effect of the

increasing relevance of data journalism, dimensions of the News Circle become more closely intertwined (p. 193). Thus, it is the task of empirical research to continuously investigate these interconnections in practice and to offer a comprehensive view on the changing nature and growing complexity of journalistic practices.

In recent years, several studies have explored different aspects of AI in journalism that can be divided into two broad domains of scholarly interest, one being the perspective of the communicator ("who"), while the other focuses on audience's perception ("to whom"). Both realms of research offer important insights to unravel the mechanisms that advance and those that hinder AI usage in journalism generally and in certain domains of reporting in particular.

The investigation of the audience's perception of AI implementation concentrates on the production stage and on how AI generated texts are assessed by readers. Several studies yield positive results in terms of different aspects of quality, specifically the perceived objectivity, credibility, and readability (Clerwall, 2014; Graefe, Heim, Haarmann & Brosius, 2018; Wu, 2020). Thus, participants either declare no considerable differences between the texts, or rate the texts that were generated automatically as more credible and more objective. Although these criteria – particularly one that encompasses the extremely contested journalistic objectivity need to be critically (re-)evaluated – it initially demonstrates the competitiveness of computer-generated news with human written ones at least "for routine tasks for which there are well-structured, machine-readable, and reliable data" (Graefe et al., 2018, p. 605).

Yet, to consider the limited scope of these findings, as mentioned by Graefe et al. (2018), seems undoubtedly essential. The reliance of AI on data suggests that not all areas of journalism will benefit from it in the same way. In his experimental study, Wu (2020) examined the audience's perception of articles covering issues from sports, finance, and politics. Comparing solely the human-written stories he found the political news stories to be evaluated as more biased than those in finance and

sports. This points to a general problem of political journalism as it appears more susceptible to (assumed) bias which is fostered by extreme polarization of political systems as well as media systems. Hence, such developments might even increase the need to find different approaches to a more "objective" political reporting that can effectively tackle (human) bias. It seems important to consider political journalism as a possible field of AI use due to its vital role and its rather complex nature.

While the studies on audience's reception bring considerable results, it is indispensable to take into account the assessment of AI in journalism of experts such as journalists who already use or are expected to use AI in the future. This allows to gain further insights into this extremely volatile field of research and to elaborate predictions of the future use of AI in journalism. In the context of their findings, Montal & Reich (2017) point towards the so-called AI gap which showed the discrepancy between scientific literature and experts of when to use the term "AI". The participants of their study unanimously recognized the "human nature of authorship even for algorithmic news" (Montal & Reich, 2017, p. 841), whereas automated journalism is seen as self-learning in the literature. This clearly demonstrates the blurred lines and the difficulty of drawing distinctions between AI, algorithms and automated tools of journalism that can only be overcome by further research and more differentiated knowledge about how AI is being used.

In a series of qualitative interviews with managers, journalists, and programmers, Lindén (2017) sought to make predictions about computer-generated news by asking experts for their assessment of the technologies. His findings indicate clear differences between media outlets. As one of the forerunner outlets in terms of AI use, the news agency Associated Press (AP) benefits from AI since monotonous and error-prone tasks can be taken on by automated software. Yet, other companies emphasize risks associated with the technologies, e.g. fear of job losses. Thus, AI can have very different effects: "This study [...] has primarily shown how the work of journalists is empowered and supplemented, but also replaced by smart machines"

(Lindén, 2017, p. 72). It becomes quite clear that comparisons between different media outlets are needed to yield more extensive results into the issue.

Having conducted interviews with Spanish journalists Túñez López et al. (2018) outlined structural differences in AI use depending on the country. According to their study, the U.S., Germany, and the UK have the highest concentration of media outlets that use automated news writing. For Germany, it is predominantly used for finance and sports coverage while in U.S.-American outlets there appeared to be more diverse settings of use. The author's findings suggest that Spanish journalists were (at that point in time) not aware of the importance of AI in journalism and therefore not inclined to reconsider their (intervening) role in the news producing process (Túñez López et al., 2018, p. 756). This repeatedly highlights the need to continuously include journalists' perspectives in further research.

Similarly, though set in a completely different country context, Jamil (2020) interviewed Pakistani journalists about their attitudes towards the use of AI. He contrasts the non-Western perspective against the Western one where "artificial intelligence is taking place in newsrooms and journalistic routines through automated data tracking (e.g. Reuter's News Tracker) and data extraction (e.g., BBC's Juicer), fast data collection (e.g., the New York Times' Editor)" (Jamil, 2020, p. 8). For the Pakistani context he conceptualizes AI technologies as moderators or intermediaries. As the most prevalent factors to hinder AI use Jamil (2020) lists: economic resources, inaccuracy of data, no access to data, lack of federal policy to promote AI as well as a lack of training for journalists to use AI and the digital divide in Pakistan. Despite some of the problems being specifically related to the Pakistani (or non-Western) contexts this arguably bears relevant implications for other studies as well.

In his 2019 report New powers, new responsibilities, Beckett discusses the findings of a global survey with journalists from 32 different countries. He highlights the possibility of creating more resources for more complex journalism through AI use while it can also help to navigate through "news overload and misinformation"

(Beckett, 2019, p. 89). This study's results line up accordingly with what other scholars have pointed out in smaller contexts.

3 Research Questions

Departing from the overarching question that principally guided the research "How do journalists and editorial staff members from the U.S. and Germany assess the use of Artificial Intelligence in political journalism?", subsequent research questions have been derived based on the previous research.

The specific focus on a detailed comparison of two forerunner countries of AI use in journalism seeks to yield interesting results for media developments in the respective countries. Thus, already existing knowledge can be extended and deepened as well as previous assumptions can be updated (Beckett, 2019; Túñez López et al., 2018). By examining political journalism as one particularly substantial field of reporting it is also possible to obtain a more in-depth understanding of opportunities and risks of AI use and to gain a more sophisticated view on the issue at hand.

The first subordinate research question is:

> *RQ 1:* To what extent do German and U.S.-American journalists and editorial staff members use AI in political reporting?

So far little is known about AI in political reporting. Therefore, it is important to firstly explore how far reaching the use generally is. The second research question seeks to gain insight into areas of AI use. This is relevant to categorize AI qualities more comprehensively and refers back to the different stages of the News Circle to identify the differing degrees of human influences in the news producing process.

> *RQ 2:* In what fields and contexts is AI typically used in political reporting in Germany and the U.S. and why?

Drawing upon evidence from prior studies (e.g., Beckett, 2019; Caswell & Dörr, 2018; Dörr & Hollnbuchner, 2017; Lindén, 2017) the research questions 3 and 4 encompass opportunities and risks of AI use. By examining opportunities and risks in political reporting it is not only possible to further assess what fosters and what hinders AI generally, but also to comprehend the premises and principles of political journalism.

> *RQ 3:* What opportunities do German and U.S.-American journalists and editorial staff members see in the use of AI in political reporting?

> *RQ 4:* What risks do German and U.S.-American journalists and editorial staff members see in the use of AI in political reporting?

4 Method

To answer the research questions presented above, an explorative approach was chosen. The method applied comprises guideline-based expert interviews combined with a qualitative content analysis conducted through online zoom interviews. The sample drawn for this study consists of journalists and editorial staff members, five of whom are U.S.-American and six of whom are German. The media outlets they work for are well-known newspapers and TV networks, many of which are leading in the implementation of AI, including the Süddeutsche Zeitung (SZ), Norddeutscher Rundfunk (NDR), Mitteldeutscher Rundfunk (MDR), Frankfurter Allgemeine Zeitung (FAZ), Rheinische Post (RP) Online and Bayerischer Rundfunk (BR) on the German side. On the U.S.-American side, participants work for The Washington Post, the Associated Press (AP), the National Broadcasting Company (NBC), The Wall Street Journal and Business Insider. An overview of the interview partners, all of whom approved the publishing of their names and positions, can be found in table 1.

German Media Outlet	Name	Positions relevant for this research
ZDF	N/A	Freelance journalist
SZ	Johannes Klingebiel	Employee in the innovations team
MDR	Gunter Neumann	Head of the MDR online editorial team, head of "MDR Wahlzone", a TV program specialized in election coverage
ARD/ NDW	Svea Eckert	Freelance journalist
BR	Cecile Schneider	Product Lead @BR AI and Automation Lab
FAZ	Thomas Schultz-Homberg	Head of the online editorial team from 2013-2020
RP Online	Clemens Broisserée	Head of redactional product development, thematic focus: AI and data journalism
U.S. Media Outlet	**Name**	**Positions relevant for this research**
NBC	Gregg Birnbaum	Assistant Managing Editor for Politics
Associated Press	Lisa Gibbs	Director of news partnerships
The Washington Post	Jeremy Gilbert	Current Knight Chair of Digital Marketing Strategy @Northwestern University Medill School; previously Director of Strategic Initiatives @The Washington Post and Executive Editor for Digital Strategies @National Geographic
The Wall Street Journal	Francesco Marconi	Co-founder of Applied XL, previously, Research and Development-Chief @Wall Street Journal
Business Insider	John Haltiwanger	Senior Politics Reporter

Table 1: Overview of the interview partners.

The prerequisites for participation included that the participants had to be able to assess the use of AI in political reporting through experience working with the technology or on another knowledge base. They had to have worked for a media outlet in the past or presently and were recruited via LinkedIn, Xing, Twitter, and personal or business contact information. From 19 contacted German journalists and editorial staff members, seven agreed to participate in an interview, which is why all interviews with the German participants were conducted within six weeks until the end of January. The recruitment of U.S.-journalists turned out to be much more difficult. Over the course of three months, 63 possible participants were reached

out to, however, until mid-March only five participants could be interviewed. The majority of the contact attempts remained unanswered, three persons explained their declination referring to current political events such as the storming of the capitol on January 6th, 2021, the inauguration of the new U.S. president and the ongoing Covid-19 pandemic.

According to the predefined quota plan, the goal was to interview equal amounts of men and women. To achieve a heterogeneous sample, one third of the interviewees were to come from each TV stations, regional and national newspapers. The sampling as well as the cross-sectional design of the study ensure that the use of AI in political reporting in the U.S. and Germany between mid-December 2020 and mid-March 2021 can be analyzed using a case comparison of both countries. Since the use of AI only changes in the long term, the research findings are valid beyond said timeframe.

The interview guideline preset included seven introductory questions and 13 open test questions concerning two different subjects: the extent (RQ1) and the areas and contexts of the use of AI (RQ2) as well as possible opportunities (RQ3) and risks (RQ4), partially regarding AI in political journalism in particular. The interviews were conducted via Zoom between December 10th, 2020, and March 12th, 2021, and evaluated using a qualitative content analysis, which required a deductive category system developed based on previous research and supplemented by inductive subcategories. After answering the introductory questions, participants were firstly asked to specify their personal experience with AI in journalism, the use of AI in their editorial offices and in what way or in which projects AI is usually being brought into action in their workplace, as well as in political journalism in general. By questioning the participants about journalism in general and political journalism in particular, the results can provide a more in-depth and comprehensive overall-picture of the use of AI in both environments.

During the second part of the interview, participants were asked to assess the risks and opportunities that might emerge from the use of AI. Interviewees were asked to what extent AI changes their work as well as work in the field of political journalism in general. Potential risks and opportunities were identified by asking about the participant's expectations regarding the advancement of AI in the next five years and how they experienced the first time they applied artificially intelligent technologies. Further questions assessed the advantages and disadvantages, the hopes and concerns participants might have towards AI in journalism and in how far they expect journalists to be replaced by self-learning softwares in the future. The interviews were not conducted and analyzed by the same researcher to ensure the study's objectivity. Furthermore, a pretest was conducted with one German participant.

5 Results

The results of the study are evaluated and presented on the basis of the four research questions. The differences and similarities between German and American journalists and media companies will be discussed.

5.1 RQ1: Extent of Use of AI in Political Reporting

The majority of the interviewees from German and U.S. media outlets had already come into contact with AI in the context of journalism at the time of the interviews. Only one interviewee from Germany (NDR) and one interviewee from the U.S. (NBC) had never encountered AI in their day-to-day work. The NBC journalist explains that AI as a tool in journalism is still too far away for him:

> I don‘t use artificial intelligence directly as a tool to do my profession. It‘s not a direct tool that I‘m engaged with. It probably is something that is one or two rungs or three rungs out from where I am (Birnbaum, NBC)

The German journalist from NDR gives a similar justification, saying that "[...] there is simply no scope for it yet" (Eckert, NDR). The interviewees from the German

media Frankfurter Allgemeine Zeitung, Süddeutsche Zeitung and Bayerischer Rundfunk and those from the American media houses The Washington Post, The Wall Street Journal and Associated Press view this quite differently. Here, artificial intelligence is already regularly being deployed in a variety of ways in different areas. At FAZ and BR, for example, AI is used on a daily basis. Similarly, the Associated Press "has a pretty wide portfolio of projects that are using different kinds of machine learning or [...] text generation solutions" (Gibbs, Associated Press). Artificial intelligence is used less at Rheinische Post and MDR in Germany and Business Insider in the U.S. In the case of the Rheinische Post, AI is only used in certain areas, such as traffic reports and news related to the Covid-19 pandemic, while the MDR interviewee describes having dealt with AI in a variety of larger and smaller projects. At Business Insider, too, there has been little use of AI until now. AI is only used in the editorial department in form of an automatic transcription program. In general, artificial intelligence is mainly used on a project-related basis in Germany, and on a more cross-project basis in the U.S.

In the specific context of political reporting, the extent of the use of AI in German as well as American media houses is still relatively small. The interviewee from Rheinische Post confirms:

> If you focus on political reporting, and also what is the focus in political reporting, i.e. interviews with political leaders, with ministers or [...] in-depth, exclusive, in vestigative reports about political events, then the influence of AI [...] in the context of journalism is to be assessed quite low from my side (Boisserée, Rheinische Post).

However, elections offer a potentially large field for the use of AI within political reporting. The Washington Post, for example, is using AI tools regularly to cover U.S. elections since 2016. In Germany, both the Rheinische Post and MDR conducted an AI-based project in the context of the 2017 federal election (MDR) and the 2020 local election in North Rhine-Westphalia (Rheinische Post), respectively. Otherwise, AI in political reporting, both in Germany and the U.S., is used, similarly as in other journalistic departments, as a tool to simplify research or to provide readers with

an optimal, personalized offer based on their data. The Associated Press employee explains the low use of AI in the field of political journalism as follows: "I think that in areas like political reporting, which can be so polarized and sensitive, I would say that concerns about the risk of error would give us pause, we would not want to take that risk" (Gibbs, Associated Press). Most of the AI projects or applications in the German media companies have only emerged within the last three years and are therefore still relatively new. The interviewed staff member from SZ describes the process of implementing AI in the newsroom as "gradual". Media outlets in the U.S. have been using artificial intelligence in journalism for a longer period of time. The Washington Post and the Associated Press, for example, have been using the technology since around 2016 and are continuously working on developing and improving AI technologies:

> The Post has a data science team. The Post has the newsroom product team. And [...] my old team continues to look at lots of different ways to look at AI and automation, to try and improve things for the newsroom, to improve things for news consumers. (Gilbert, The Washington Post)

Almost all interviewees agree that AI will definitely play a role in the future of journalism and implementation should therefore be expanded. Nevertheless, the interviewee from MDR in Germany, for example, also sees obstacles to the implementation of AI: "I think that the technical requirements and the financial requirements for this are still relatively difficult at MDR" (Neumann, MDR). The Business Insider interviewee in the U.S. believes that AI still receives too little attention: "It's just not really on our radar as a big concern yet. It's kind of a blip, that maybe we should pay a bit more attention to" (Haltiwanger, Business Insider). Media companies that are already using AI are, in most cases, also looking to expand the technology further. Those that have not yet used AI within their operations usually have no plans to do so in the future. Nevertheless, a fundamental interest in the technology is evident among all interviewees.

5.2 RQ2: Domains, Contexts, and Reasons for Using AI in Political Reporting

Artificial intelligence does not yet play a significant role within political reporting in Germany and the U.S. Rather, the technology is mostly used as a kind of tool or aid to make journalists‘ work easier. A large field of application for AI in the context of political reporting opens up, for example, in the processing of large amounts of data. At the Süddeutsche Zeitung in Germany, a machine learning system has been developed for this purpose specifically. Political journalists can use this tool, for instance, to identify connections between politicians and other people or networks (Klingebiel, SZ). The reasons for using this technology are, on the one hand, to make the journalists‘ work easier and to save them time, but also on the other hand due to the personal motivation of some employees: “People think it‘s cool! [...] And people are curious and want to experiment with it. And that is an absolutely fair and justified motivation“ (Klingebiel, SZ). At the Associated Press in the U.S., for example, an algorithm is used to scan social media for breaking news. The news found, which are then found, are either verified or the algorithm recognizes whether it originates from a bot. The interviewee cites the time saved for journalists as the main reason for this use (Gibbs, Associated Press).

Another potentially large area of application for artificial intelligence is article or data generation. At The Washington Post, The Wall Street Journal, and the Associated Press in the U.S., AI is used primarily in sports or financial and business reporting. However, The Washington Post also uses automated article and data generation in the wake of U.S. political elections or when reporting on campaign finance. For political elections such as the U.S. presidential election, The Washington Post utilizes AI to generate stories that are automatically updated based on newly incoming results, in real time. In addition, they use an AI tool to automatically play out this information simultaneously across multiple channels and a combination of AI and geo-location to send personalized email newsletters to readers based on their location. At the Rheinische Post in Germany, automatically generated articles on

the current Covid-19 pandemic situation are being issued to readers on a regular basis.

The FAZ in Germany uses artificial intelligence primarily within the application area of analytics, user data and personalization. In the FAZ.net app, an AI machine-learning combination plays out topics tailored specifically to users based on their specified data and interests. According to the interviewee from FAZ, the reason for this is the "basic need among people to receive personalized content, because that is what they are now used to in the digitalized world of their everyday lives" (Schultz-Homberg, FAZ).

In addition to these three major areas, AI is also applied within political journalism in the areas of language and translations as well as pattern recognition and verification. SZ and BR in Germany and Business Insider, Associated Press and The Washington Post in the U.S., for example, utilize AI in the form of automatic transcription software to transcribe interviews faster and thus save journalists' time. At BR and MDR, the moderation of user comments is also partially taken over by an AI to simplify the work of employees. Similarly, The Washington Post relies on another AI application in the area of language. With the help of a self-developed "style checker", articles are scanned for inappropriate words, spelling or grammatical errors in order to adapt them to the basic writing style of The Washington Post. The reason here is also a lower expenditure of time and the general support of journalists by an AI (Gilbert, The Washington Post).

5.3 RQ3: Opportunities of Using AI in Political Reporting

The interviews revealed that German as well as U.S. newsroom members anticipate major potentials for AI in political reporting. Four aspects emerged in which the interviewees see the greatest opportunities: AI is seen as a tool that offers additional research and verification possibilities as well as new opportunities for personalization. Also, it could increase the general qualitative standard of political reporting.

One major advantage is that AI allows for time saving and can take over routine tasks. The three most important contexts where AI can be helpful in saving time are a) automating election results and articles, b) making information available to journalists by processing large amounts of data, and c) transcribing interviews to help journalists work faster and more efficiently. AI can be used to systematically and quickly sift through vast data sets in order to gain new insights or discover new stories: Hence, AI can "make things visible that were previously invisible, make injustices or biases visible [...] [and] can point to grievances that were previously hidden" (Eckert, NDR). Furthermore, the German data journalist from NDR and the U.S. journalists from the AP, The Washington Post and The Wall Street Journal see opportunities in the use of AI for verification and counteracting false information. Thus, information as well as images and videos can be cross-checked more quickly and reliably. The former The Wall Street Journal and Associated Press journalist also explains that AI in political journalism could help to counter subjective reporting. He describes this as follows:

> It's a complex domain where there's a lot of information and there's not a way of defining ground truth. Ground truth is basically a shared understanding of a certain topic by multiple people in organizations [...] So these types of tools, they help you quantify fields that are not quantifiable. And that's the appeal to using these techniques in political journalism, because otherwise it's all subjective and it becomes hyperpolarized (Marconi, The Wall Street Journal).

Another opportunity that was repeatedly mentioned is the personalization of content. Thus, AI in political journalism could "serve preferences recognized on the basis of personas, behavioral patterns [...] by playing content to people [...] depending on their interests, the time, the device, the place where they are" (Schultz-Homberg, FAZ). The former journalist hopes to win back young readers in particular and to awaken political interest among younger generations. In addition, one could avoid writing past the reader. If readers become more interested in political content again, a higher profit can ultimately be generated if additional subscriptions are purchased.

Through the already mentioned advantages of saving time and creating resources for other activities, the new possibilities of research and verification as well as the creation of personalized content, a higher qualitative standard of political journalism could also be achieved. AI can take over repetitive, scalable and routine tasks for journalists quickly and efficiently, giving the journalists more time for complex, creative stories that cannot be created by machines. This division of labor could be described as a hybrid human machine approach and is summarized by the interviewed The Washington Post Journalist as follows:

> A.I. storytelling, is not around creating thousands and thousands of machine generated stories. It's around an approach that is a customization of hybrid human and machine written stories. I think that the nearterm long term future very much lies in that (Gilbert, The Washington Post).

Moreover, AI can help to prevent human errors due to fatigue, which in turn can lead to an increase in the credibility of journalism, according to Schultz-Homberg from the FAZ. Other points that could enhance the quality of political journalism with the help of AI include considerations of how to use AI to counter biased reporting (Gibbs, AP; Marconi, The Wall Street Journal) and to investigate whether sources are diverse enough (Gilbert, Business Insider). In summary, German and U.S. editorial staff members see many opportunities in the use of AI in political journalism. Not least because of this, many of the editorial staff members surveyed believe that AI will play an increasingly important role in political journalism in the future.

5.4 RQ4: Risks of Using AI in Political Reporting

Even though the use of AI seems promising, the interviewees voice concerns that should not be ignored. Almost all of the German and U.S. interviewees stated that they consider the ethical challenges to be the greatest risk factor in the use of AI in political journalism. The lack of human judgment seems to be the main factor. For instance, data journalist Eckert from NDR states that political journalism is "also about assessing and classifying" topics, and this is precisely what AI cannot

yet do: "classify and assess things." Several participants believe that the automation of political journalistic content is not feasible as this usually requires a very large commentary component and AI is not yet capable to understand and contextualize content:

> I think that nothing can really substitute a human reporter. You have to make ethical decisions in terms of how you frame an article, in terms of having an expertise on a subject building a beat ... They may give the straight information, but there's context. I think that's really vital, that comes from experience, expertise and really caring about a subject and making sure that the full picture is presented to a reader (Haltiwanger, Business Insider).

Some of the interviewees even see a risk for democracy in the increased use of AI in political journalism. This is because political reporting can also have an influence on the perception of elections and parties meant to be elected by audiences (Schultz-Homberg, FAZ) and leaving this to a machine is seen by some interviewees as questionable, if not dangerous. Furthermore, wrong conclusions in the interpretation of data seem to be another risk (Eckert, NDR; Schneider, BR). It is therefore important not to blindly trust the technology and to understand how AI arrives at certain results. Furthermore, it is important to keep in mind that AI can also serve a certain bias (Marconi, The Wall Street Journal; Boisserée, Rheinische Post). According to the Associated Press journalist, it is therefore important to have an understanding of why and how AI is being used, which is why AP already uses an "ethical checklist for robot journalism" (Gibbs, AP). Another ethical risk is a willfully damaging use of AI, for example to manipulate information. This also includes the dissemination of false information, as described by Schneider from BR and Eckert from NDR: "AI can also be used for things that are difficult for journalistic intelligence gathering" (Schneider, BR), such as deep fakes, so that it ultimately "becomes more and more difficult to distinguish what is right [and] what is wrong" (Eckert, NDR). Another risk, which is mainly mentioned by German editorial staff members, is the fear of being replaced by the new technology, resulting in losing their livelihood. The head of the MDR online editorial department as well as the journalist of the SZ consider this to be very realistic, since extensive activities in journalism can already

be taken over by an AI. In general, however, it can be said that this fear is perceived very differently. As already mentioned, the majority of the editorial team members interviewed do not consider a complete replacement of journalists by AI a probable scenario, as they envision AI only as taking over supporting activities. In addition, working with AI in political journalism is complicated by a lack of resources. Many media companies, especially smaller ones, do not have the necessary economic and technical resources to initiate innovation processes. Furthermore, many members of the editorial staff and the companies themselves are skeptical about the new technology. Thus, the "understanding [for AI] is not there yet" (Neumann, MDR). Only the NBC journalist Birnbaum, who has not yet come into direct contact with AI in his work, expresses skepticism about AI on the part of the editorial staff members themselves. Beyond the aspect of mistrust AI can also cause false expectations:

> You [must] of course also always manage expectations very strongly. This can very quickly slip into one extreme or the other. Some think with AI, just snap once and it will solve all my problems. And others think [...] will I be made superfluous? Are the robots the new journalists and will I be out of a job? So in both cases you can say: No, neither will happen (Schneider, BR).

Consequently, AI is neither the solution to all problems nor the downfall of manual journalism. While AI in political journalism is still in its early stages of development, its benefits as well as risks should not be dramatically overstated. According to the AP Journalist Gibbs, AI is not "more complicated or disruptive" than other technologies. In summary, it can be stated that the use of AI is partly complicated not only by a lack of economic and technological resources and the necessary knowledge of journalists, but also by skepticism and false expectations of many editorial offices.

6 Discussion

As the analysis of the interviews shows, almost all interviewees have already come into direct contact with AI in the course of their work as journalists or editorial staff. The majority of media outlets in Germany and the U.S. are already using AI in a

variety of ways. Nevertheless, it was confirmed that the use of AI within political reporting is still quite low in both countries. Although the interviewees see many opportunities in the new technology, many of them also point out the risks of AI, especially within political reporting. The use of AI has therefore up to now been more common – especially in the U.S. – in the topic areas of sports or finance, as previous research has also shown (Caswell & Dörr, 2018). Nevertheless, one area within political reporting emerged as particularly suitable for the use of artificial intelligence. In both Germany and the U.S., AI is already being used in a variety of ways in the context of political elections – be it in the automated generation of news about current election results, the playout of this information to readers based on their location, or the simultaneous distribution of the news on different channels. In relation to research question 1, the following hypothesis can therefore be derived:

> *Hypothesis 1:* Within political journalism, artificial intelligence is used particularly in the area of political elections.

The areas and contexts of the use of artificial intelligence in political journalism are already diverse today. Based on the forms of (AI-based) automation in the journalistic news circle by Loosen and Sohlbach (2020, p. 181), it was possible to analyze and categorize the various areas of application. As a general aid, AI serves journalists primarily in the area of language and translation in the form of automatic transcription systems or spelling or "style checkers". However, AI offers even greater potential in the areas of data and article generation, processing of large volumes of data, as well as analytics, user data and personalization. Artificial intelligence is used in the form of search engines or algorithms for research, programs for automated text generation or in the personalized playout of articles to readers based on their interests. Data plays a major role in all these areas. AI can be of great help to journalists in processing, preparing or analyzing these usually large volumes of data. Therefore, with the ever-growing field of data journalism, it is very likely that AI will become more and more important in the future. Thus, another hypothesis, aligned

with research question 2, is:

> *Hypothesis 2:* Artificial intelligence will be used in newsrooms primarily to process and systematize large amounts of data.

Furthermore, the results show that editorial staff members and journalists see many opportunities with regard to the use of AI in political journalism. In line with Beckett's (2019) study, it was pointed out that German and U.S. editors also see AI in political journalism as a tool that saves time and thus creates resources for other activities. Another opportunity identified was the personalization of content for recipients and the resulting acquisition or reacquisition of readers. Similar to the study by Stray (2019), it was also shown that the use of AI in political journalism primarily offers potential for research and verification, also to the extent that AI can find stories and information that humans might otherwise not discover (Stray, 2019, p. 1093). With the help of the new verification possibilities, the spread of false information could also be counteracted. Especially for political journalism, the division of labor between humans and AI seems to be of particular importance. AI can take over scalable, repetitive tasks, such as the transcription of interviews, the automated presentation of election results, or systematic research and verification. Journalists, on the other hand, will continue to be needed for the contextualization of information and the distribution of said information through specifically human written articles. This hybrid human machine approach gives journalists more time to work creatively and write articles with detailed background information. The aforementioned opportunities may ultimately result in increased content quality. Based on this, the following hypothesis in relation to research question 3 is formulated:

> *Hypothesis 3:* The use of AI in political journalism can increase the qualitative standard of political journalism.

Unlike existing research by Wu (2020), this increase in quality does not refer to higher objectivity or credibility of the articles. This was only mentioned marginally

by the interviewees and would therefore have to be verified by further empirical studies with additional consideration of the recipient‘s perspective.

However, the use of AI should also be viewed critically with regard to the risks mentioned by the interviewees. Above all, the editorial staff and journalists see risks in the ethical challenges, lack of resources and false expectations of AI. It was found that the use of AI is partly complicated by a lack of economic and technological resources. In addition, some editorial teams are skeptical about its use. It also seems to be important to practice “expectation management“ (Schneider, BR), since the findings point out that AI means neither the downfall of manual journalism nor is it the solution to all problems. The fear of being replaced by AI is rated only as a moderate risk by the editorial staff members but is considered to be more realistic by the German interviewees than by the U.S. editorial staff members. In contrast to the study by Lindén (2017, p. 67), the majority of the interviewees in this sample see human labor as irreplaceable for political journalism. These different findings can be explained by the need of human authorship in political journalism, due to its democratic function. A major risk seems to be the lack of human assessment and contextualization of information, which cannot (yet) be guaranteed by AI. This leads to the fourth hypothesis of this study:

> *H4:* The use of AI for automated article generation in political journalism appears to be unsuitable.

This contradicts considerations made at the beginning based on existing research by Wu (2020, pp. 1018-1022), whose study suggests a use of automated articles as beneficial, due to increased objectivity and credibility perceptions. However, this discrepancy can be attributed to the different perspectives: Wu‘s (2020) study cites the assumed increased objectivity on the part of recipients, while the present project deals with the perspective of journalists. Furthermore, Wu (2020) focuses on multiple departments of journalism, while only the democratically important political journalism is considered here. Nonetheless, the research results suggest

that AI will play an increasingly important role in political journalism and has the potential to change the work of media professionals profoundly and permanently.

7 Limitations

While the discussion above shows the fruitful insights offered by the given study, limitations do, however, also need to be considered. Firstly, the sample of U.S. participants might have been distorted due to various reasons. Political events such as the storm of the capitol on January 6th 2021, the inauguration of President Biden, and the ongoing Covid-19 pandemic led to possible participants lacking the time for an interview, as some journalists responded. As the pool of potential interview partners in the U.S. seemed exhausted by the end of the recruitment phase, many of said interview partners did not coincide with the predefined quota plan, and for instance rather used to work in journalism but changed the sector. Due to the different media systems in both countries, public service broadcasters are not represented in the U.S. sample, but are over-represented in the German one.

Other limitations include the lack of a pretest for the English interview guideline, as one was only performed for the German version due to the lack of interview partners. Possible interviewer effects cannot be ruled out, as five researchers conducted the interviews. One incident in particular might have led to somewhat biased results: The interviewee who worked for The Wall Street Journal had to abort the interview before completion due to further appointments and handed in the remaining answers later, via email. The interview should not have been included in the evaluation but was incorporated anyways due to the low response rate on the side of U.S.-American journalists. Hence, the comparability with other interview results is only possible to a limited extent due to the asynchronous nature of the written answers and the lack of spontaneous questions. In addition to that, respondents often tended to make general statements about AI in journalism, which is why it is sometimes unclear whether or not the given answers focus specifically on political journalism.

8 Conclusion

The given paper researched the expert evaluation of AI implementation within German and U.S.-American news outlets in political journalism. Previous research was discussed, and subordinate research questions concerning the extent of the usage, the areas and contexts of AI implementation, and associated opportunities and risks were asked.

To answer the given questions, qualitative guideline-based interviews with five American and six German experts working in newsrooms were conducted and analyzed using a qualitative content analysis. Results were then discussed along the subordinate research questions: Within political journalism, outlets from both countries apply AI mostly within election coverage. Generally, German outlets tend to use AI in a more project-bound way, while American news organizations implicate the technology more generally in economics-, and sports-reporting. Findings here could be set into relation with the model of the news circle from previous research. The first hypothesis therefore suggests that AI is mostly being implemented within election coverage, in the context of political journalism.

The areas, contexts, and reasons for the usage of the technology are similar within both countries. With the help of AI large amounts of data can be processed, and the technology is used to generate articles, to take over transcription-, translation-, and personalization-tasks as well as for verification purposes. Findings from previous studies were therefore confirmed and extended: According to the interviewees, AI can be employed as a helpful tool. The second hypothesis states that AI is being used within newsrooms to process and systemize large amounts of data.

Perceived opportunities and risks were articulated transnationally. Opportunities in working with the technologies considered by the journalists are heightened research and verification resources, which can in turn make journalism less error-prone and increase its general quality. Furthermore, some interviewees view AI as a tool to

enhance the trustworthiness and objectivity of the content, as well as personalization possibilities. Again, findings from previous studies could therefore be confirmed and extended: The interview partners suggest that AI will also play a larger role in political journalism in the future. The third hypothesis states that AI usage in political journalism allows for a heightened qualitative standard.

Risks, however, also exist in relation to the technologies. As human contextualization would be missing in articles solely generated by an AI, ethical concerns arise. Furthermore, a possible skepticism against the technology could hinder its implementation and missing economic and technological resources need to be considered. Contrary to previous research, however, especially American journalists here do not view their positions as in danger: Instead, the importance of human contextualization, especially in political journalism, is articulated.

The research-leading question of the paper can therefore be answered as follows: The interviewed experts are open to the implementation of AI in political journalism, though its usage is currently limited to election coverage. Perceived risks largely concern ethics and relate back to the democratic function of political journalism. Opportunities of the technologies, however, seem to outweigh those concerns. Overall, AI is seen as a tool, which could be increasingly used in the future to heighten the quality of journalism.

Although the research shows some limitations, the study's explorative approach can provide interesting insights into the usage and future of AI within journalism as well as give impulses for needed research. Future studies should include a larger sample and verify the hypotheses formulated here. Further international investigations with a more heterogeneous sample and a focus specifically on the realm of political journalism should be conducted.

In addition to being a starting point for further research, the given study provides implications for the practical field: Journalists and staff members should be trained

specifically to work with AI, familiarizing them with the associated opportunities and risks, to offer them the opportunity to use AI's potentials while avoiding its downfalls. Points made within this paper could be used as a starting point. Furthermore, skepticism within news outlets needs to be reduced, to allow for a productive use of the technologies, and economic solutions for implementation of the technologies in smaller news outlets need to be found. Lastly, hybrid approaches using both the strengths of automated news production and additional human contextualization should be furthered.

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